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10/759,557	01/16/2004	Edward Eytchison	SONY-24100	8128

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EXAMINER

MOUZON, LAJUANIA N

ART UNIT	PAPER NUMBER
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2109

MAIL DATE	DELIVERY MODE
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06/22/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/759,557

Applicant(s)

EYTCHISON, EDWARD

Examiner

La Juania N. Mouzon

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 January 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. This office action is in response to the preliminary amendments received on 2/27/2004.

Drawings

2. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the converter implemented in either a universal plug and play (UPnP) or non-universal plug and play (N-UPnP or rendezvous) device must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate

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prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 20 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. In regards to claim 20 there is no mention of what is being interfaced in the claim for sections A and B. The Examiner will interpret sections A and B of this claim as the

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UPnP type interfacing circuit and N-UPnP type interfacing circuit as same as what is interfaced as claimed in claim 11.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-18, 20-27, 29-36, 38-43, and 44 are rejected under 35 U.S.C. 102(b) as being anticipated by Cheng (US PGPub 2002/0078161).

Figures 1, 2, and 5 of Cheng are reproduced below.

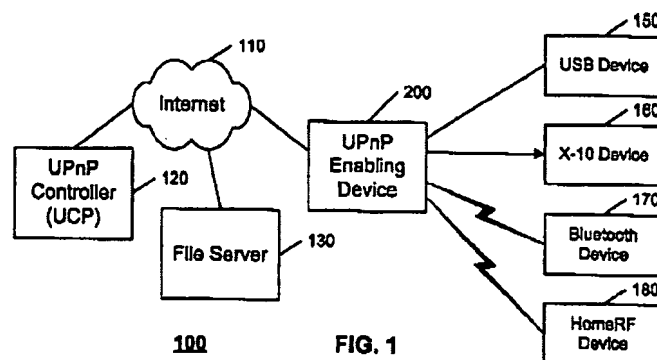
9. In regards to claim 1 Cheng discloses, a method of bridging communications between a universal plug and play type device and a rendezvous type device (**¶0018, teaches a method for bridging a universal plug and play (UPnP) and non-universal plug and play (N-UPnP or rendezvous) communications.**) comprising:

- a. a. receiving a communication from the universal plug and play type device for the rendezvous type device (**¶0022, teaches receiving a communication from a UPnP device for a N-UPnP device.**);
- b. b. converting the communication into the rendezvous type protocol thereby forming a converted communication (**¶0022, teaches converting the communications.**); and

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c. c. transmitting the converted communication to the rendezvous type device (¶0022, teaches transmitting the communication to the N-UPnP device.).

10. In regards to claims 2, 7, 12, 21, and 30 Cheng discloses, wherein the universal plug and play type device is coupled within a network of universal plug and play type devices (Fig. 1 #100 and ¶0020, teaches whereas each network is homogenous by stated that the UPnP enabling device connects multiple heterogeneous-networks.).



11. In regards to claims 3, 8, 13, 22, and 31 Cheng discloses, wherein the rendezvous type device is coupled within a network of rendezvous type devices (Fig. 1 #100 and ¶0020, teaches whereas each network is homogenous by stated that the UPnP enabling device connects multiple heterogeneous-networks.).

12. In regards to claims 4, 9, 14, and 39 Cheng discloses, wherein converting the communication is performed by a conversion circuit (Fig. 2 #220 and ¶0022, teaches the processor converting the communication.).

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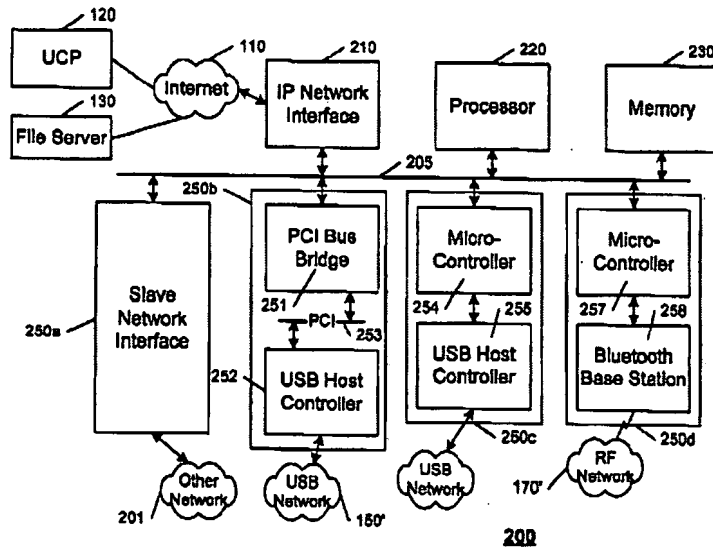


FIG. 2

13. In regards to claims 5, 10, 15, 33, and 40 Cheng discloses, wherein the conversion circuit is programmed by the universal plug and play type device or the rendezvous type device (**¶0040-¶0042, teaches the circuit being programmed by the UPnP device.**).

14. In regards to claim 6 Cheng discloses, a method of bridging communications between a rendezvous type device and a universal plug and play type device (**¶0018, teaches a method for bridging a universal plug and play (UPnP) and non-universal plug and play (N-UPnP or rendezvous) communications.**) comprising:

- d. a. receiving a communication from the rendezvous type device for the universal plug and play type device (**¶0022, teaches receiving a communication from N-UPnP a device for a UPnP device.**);
- e. b. converting the communication into the universal plug and play type protocol thereby forming a converted communication (**¶0022, teaches converting the communications.**); and

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- f. c. transmitting the converted communication to the universal plug and play type device (**¶0022, teaches transmitting the communication to the N-UPnP device.**).

15. In regards to claim 11 Cheng discloses, a converter configured to couple between a universal plug and play type device and a rendezvous type device to convert communications between the universal plug and play type device and the rendezvous type device into proper formats (**Fig. 1 #200, as shown on pg. 5, and ¶0020, teaches the UPnP enabling device (converter) for converting communications for multiple heterogeneous-networks, UPnP and N-UPnP.**), comprising:

- g. a. a universal plug and play type interface circuit configured to couple to a universal plug and play type device operating under a universal plug and play type protocol (**Fig. 2 #210, as shown on pg. 6, teaches a IP Network interface used for sending and receiving UPnP protocols.**);
- h. b. a rendezvous type interface circuit configured to couple to a rendezvous type device operating under a rendezvous type protocol (**Fig. 2 #250_{a-d}, as shown on pg. 6, teaches varies N-UPnP interfaces used for sending and receiving N-UPnP protocols.**); and
- i. c. a conversion circuit coupled between the universal plug and play type interface circuit and the rendezvous type interface circuit (**Fig. 1 #200, as shown on pg. 5.**), wherein the conversion circuit converts communications directed from the universal plug and play type device to the rendezvous type device into the rendezvous type protocol, and further wherein the conversion circuit converts

communications directed from the rendezvous type device to the universal plug and play type device into the universal plug and play type protocol (**¶0022, teaches the UPnP Enabling Device converting the communication to communicate between the networks in the proper protocols.**).

16. In regards to claims 16, 25, and 34 Cheng discloses, wherein the converter is a stand-alone device (**Fig. 1 #200, as shown on pg. 5, teaches the UPnP Enabling Device (converter) as a stand-alone device.**).

17. In regards to claims 17, 26, 35, and 42 Cheng discloses, wherein the converter is implemented within the universal plug and play type device or the rendezvous type device (**¶0090, teaches that any combination of any hardware and software, as well as any system configurations, can be used and the figures are examples and can be modified. Therefore, the combination of the converter within one of the devices would be inherent.**).

18. In regards to claims 18, 27, 36, and 43 Cheng discloses, wherein the universal plug and play type interface circuit comprises a universal plug and play type proxy (**Fig. 5 #220 and ¶0031 teaches a UPnP proxy.**) which maintains a table of entries, each entry corresponding to a rendezvous type device (**Fig 5. #504 and ¶0035 teaches a table for keeping track of each network.**).

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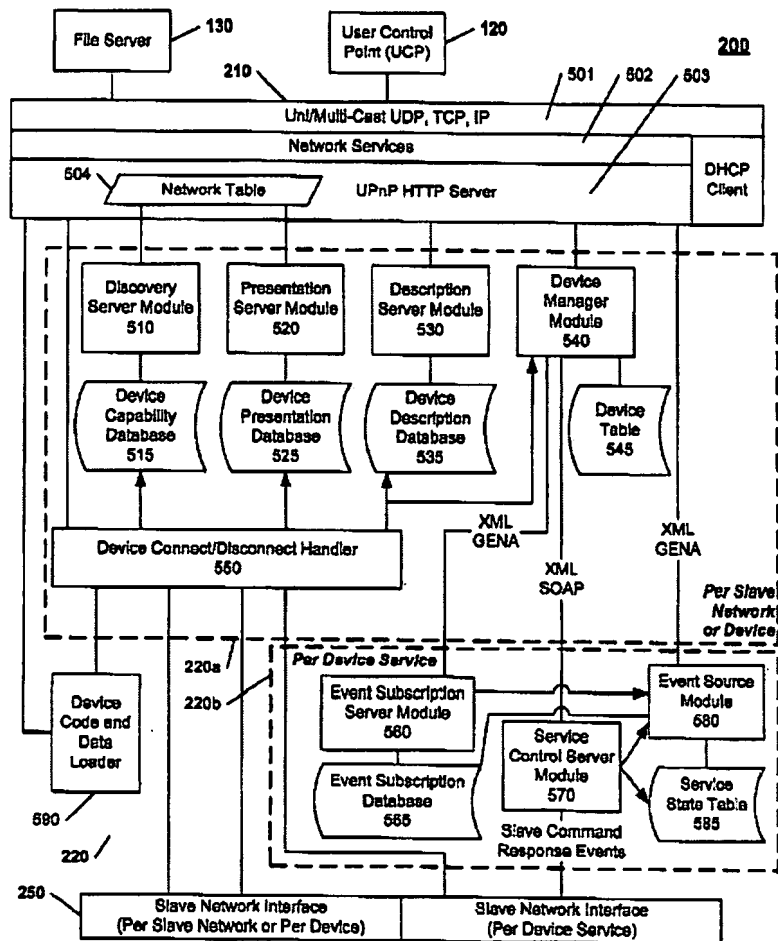


FIG. 5

19. In regards to claim 20 Cheng discloses, a converter configured for coupling between a universal plug and play type device and a rendezvous type device to convert communications between the universal plug and play type device and the rendezvous type device into proper formats (Fig. 1 #200, as shown on pg. 5, and ¶0020, teaches the UPnP enabling device (converter) for converting communications for multiple heterogeneous-networks, UPnP and N-UPnP.), comprising:

- j. a. a first means for interfacing configured for coupling to a universal plug and play type device operating under a universal plug and play type protocol

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(Fig. 2 #210, as shown on pg. 6, teaches a IP Network interface as a means for sending and receiving UPnP protocols.);

k. b. a second means for interfacing configured for coupling to a rendezvous type device operating under a rendezvous type protocol **(Fig. 2 #250_{a-d}, as shown on pg. 6, teaches varies N-UPnP interfaces as a means for sending and receiving N-UPnP protocols.); and**

l. c. means for converting coupled between the first means for interfacing and the second means for interfacing **(Fig. 1 #200, as shown on pg. 5.),** wherein the means for converting converts communications directed from the universal plug and play type device to the rendezvous type device into the rendezvous type protocol, and further wherein the means for converting converts communications directed from the rendezvous type device to the universal plug and play type device into the universal plug and play type protocol **(¶0022, teaches the UPnP Enabling Device as a means for converting the communication for a means for communicating between the networks in the proper protocols.).**

20. In regards to claim 23 Cheng discloses, wherein a conversion program used by the means for converting is stored within the means for converting **(¶0022, teaches means for the program that converts the communication is stored in the processor.).**

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21. In regards to claim 24 Cheng discloses, wherein the means for converting is programmed by the universal plug and play type device or the rendezvous type device (**¶0040-¶0042, teaches means for the circuit being programmed by the UPnP device.**).

22. In regards to claim 29 Cheng discloses, bridge device configured for coupling between a universal plug and play type device and a rendezvous type device for converting communications between the universal plug and play type device and the rendezvous type device into proper formats (**Fig. 1 #200, as shown on pg. 5, and ¶0020, teaches the UPnP enabling device (bridge) for bridging communications for multiple heterogeneous-networks, UPnP and N-UPnP.**), comprising:

- m. a. a universal plug and play type interface circuit configured to couple to a universal plug and play type device operating under a universal plug and play type protocol (**Fig. 2 #210, as shown on pg. 6, teaches a IP Network interface used for sending and receiving UPnP protocols.**);
- n. b. a rendezvous type interface circuit configured to couple to a rendezvous type device operating under a rendezvous type protocol (**Fig. 2 #250_{a-d}, as shown on pg. 6, teaches varies N-UPnP interfaces used for sending and receiving N-UPnP protocols.**); and
- o. c. a conversion circuit coupled between the universal plug and play type interface circuit and the rendezvous type interface circuit (**Fig. 1 #200, as shown on pg. 5.**), wherein the conversion circuit converts communications directed from

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the universal plug and play type device to the rendezvous type device into the rendezvous type protocol, and further wherein the conversion circuit converts communications directed from the rendezvous type device to the universal plug and play type device into the universal plug and play type protocol (**¶0022, teaches the UPnP Enabling Device converting the communication to communicate between the networks in the proper protocols.**).

23. In regards to claim 32 Cheng discloses, wherein a conversion program used by the conversion circuit is stored within the conversion circuit (**¶0022, teaches the program that converts the communication is stored in the processor.**).

24. In regards to claim 38 Cheng discloses, a network of devices, operating under a plurality of protocols (**Fig. 1 #100, as shown on pg. 5**), the network of devices comprising:

p. a. one or more universal plug and play type devices operating under a universal plug and play type protocol (**Fig. 1 #100, as shown on pg. 5, and ¶0020, teaches whereas each network is homogenous by stated that the UPnP enabling device connects multiple heterogeneous-networks.**); ;

q. b. one or more rendezvous type devices operating under a rendezvous type protocol (**Fig. 1 #100 , as shown on pg. 5, and ¶0020, teaches whereas each network is homogenous by stated that the UPnP enabling device connects multiple heterogeneous-networks.**); and

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- r. a converter configured to couple between a universal plug and play type device and a rendezvous type device to convert communications between the universal plug and play type device and the rendezvous type device into proper formats (**Fig. 1 #200, as shown on pg. 5, and ¶0020, teaches the UPnP enabling device (converter) for converting communications for multiple heterogeneous-networks, UPnP and N-UPnP.**), comprising:
- i. i. a universal plug and play type interface circuit configured to couple to a universal plug and play type device operating under a universal plug and play type protocol (**Fig. 2 #210, as shown on pg. 6, teaches a IP Network interface used for sending and receiving UPnP protocols.**);
 - ii. ii. a rendezvous type interface circuit configured to couple to a rendezvous type device operating under a rendezvous type protocol (**Fig. 2 #250_{a-d}, as shown on pg. 6, teaches varies N-UPnP interfaces used for sending and receiving N-UPnP protocols.**); and
 - iii. iii. a conversion circuit coupled between the universal plug and play type interface circuit and the rendezvous type interface circuit (**Fig. 1 #200, as shown on pg. 5.**), wherein the conversion circuit converts communications directed from the universal plug and play type device to the rendezvous type device into the rendezvous type protocol, and further wherein the conversion circuit converts communications directed from the rendezvous type device to the universal plug and play type device into the

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universal plug and play type protocol (**¶0022, teaches the UPnP Enabling Device converting the communication to communicate between the networks in the proper protocols.**).

25. In regards to claim 41 Cheng discloses, wherein the converter is a stand-alone device coupled between the universal plug and play type devices and the rendezvous type devices (**Fig. 1 #200, as shown on pg. 5, teaches the UPnP Enabling Device (converter) as a stand-alone device couple between the N-UPnP and UPnP networks.**).

Claim Rejections - 35 USC § 103

26. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

27. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

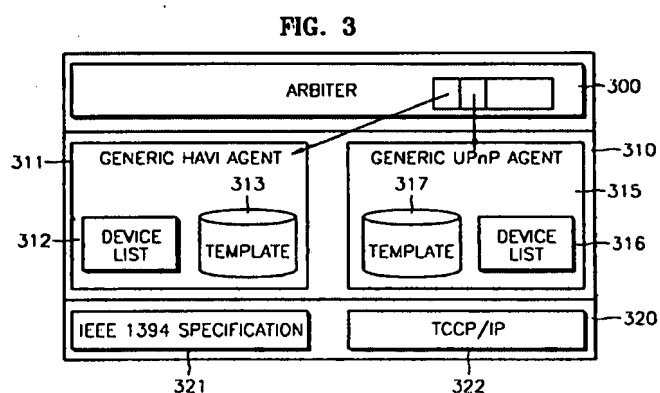
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28. Claims 19, 28, 37, and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cheng (US PGPub 2002/0078161) as applied to claims 6,11, 20, 29, and 38 above, and further in view of Cho (US PGPub 2003/0016682).

Fig. 3 of Cho is reproduced below.

29. In regards to claims 19, 28, 37, and 44 Cheng does not disclose, wherein the rendezvous type interface circuit comprises a rendezvous type proxy which maintains a table of entries, each entry corresponding to a universal plug and play type device.

30. In the same field of endeavor Cho teaches a generic HAVI (Home Audio Video Interoperability) agent that includes a table that has entries corresponding to the UPnP devices (Fig. 3 #311 and ¶0042).



31. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Cheng's UPnP enabling device for heterogeneous network of slave devices with Cho's teaching as discussed above to

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allow for the capability of having an updated list of available devices therefore eliminating the step of asking if the device is available.

Conclusion

32. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Lanigan (US PGPub 2003/0110298) HAVI-UPNP Bridging.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to La Juania N. Mouzon whose telephone number is 571-270-3045. The examiner can normally be reached on Monday - Friday 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Assouad can be reached on 571-272-2210. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LNLM



**PATRICK ASSOUD
SUPERVISORY PATENT EXAMINER**